

Inequalities~

Vocab.

Inequality: A mathematical sentence that contains the symbols $<$, $>$, \leq or \geq .
(less than or equal to) (greater than or equal to)

ex: $x \geq 2$ "x is greater than or equal to 2"

• Inequalities have many solutions!

Use a numberline to graph the solutions.

$<$ less than
 $>$ greater than } \bigcirc use an open circle then shade in the correct direction.

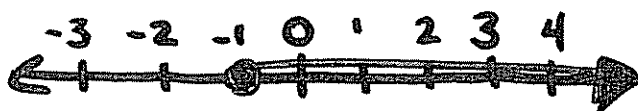
ex: $x < 3$



\leq less than or equal to
 \geq greater than or equal to } \bullet use a closed circle then shade

ex:

$x \geq -1$



IMPORTANT: When you multiply or divide by a negative #, turn the sign around!

[Ex.] $-x > 5$ "opposite of x is greater than 5"
 $(-1) \cdot -x > 5(-1)$

$x < -5$

[Ex.] $-\frac{1}{3}y > -3$

